

## Safety Data Sheet

Copyright, 2025, 3M Company All rights reserved. Copying and/or downloading of this information for the purpose of properly utilizing 3M products is allowed provided that: (1) the information is copied in full with no changes unless prior written agreement is obtained from 3M, and (2) neither the copy nor the original is resold or otherwise distributed with the intention of earning a profit thereon.

This product is defined as an article under REACH and does not require a Safety Data Sheet under Article 31 of Regulation (EC) No. 1907/2006 as amended for Great Britain. Since an SDS is not required, this document does not contain all of the information that is required for substance and mixture SDSs under REACH.

 Document group:
 16-2219-0
 Version number:
 12.00

 Revision date:
 03/10/2025
 Supersedes date:
 09/11/2021

This Safety Data Sheet has been prepared in accordance with the REACH Regulation (1907/2006), as amended for GB.

# **SECTION 1: Identification of the substance/mixture and of the company/undertaking**

#### 1.1. Product identifier

3M™ Glass Bubbles HGS Series - HGS2000, HGS3000, HGS4000, HGS5000, HGS6000, HGS8000X, HGS10000, HGS18000, HGS4K28, HGS7K32, HGS19K46

## **Product Identification Numbers**

11044011401111111111111	1 (41116-15			
98-0212-2988-9	98-0213-2869-9	FS-9100-4387-6	FS-9100-4570-7	FS-9100-5075-6
FS-9100-5303-2	FS-9100-5341-2	UU-0090-3087-3		
7100027913	7000033802	7000080191	7000033815	7000033831
7100053957	7000080339	7100139096		

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### **Identified uses**

Downhole Oil and Gas Applications, Industrial use.

#### 1.3. Details of the supplier of the safety data sheet

Address: 3M United Kingdom PLC, 3M Centre, Cain Road, Bracknell, Berkshire, RG12 8HT.

**Telephone:** +44 (0)1344 858 000

E Mail: ner-productstewardship@mmm.com

Website: www.3M.com/uk

#### 1.4. Emergency telephone number

+44 (0)1344 858 000

## **SECTION 2: Hazard identification**

#### 2.1. Classification of the substance or mixture

#### The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain

#### **CLASSIFICATION:**

This material is exempt from hazard classification according to Regulation (EC) No. 1272/2008, as amended for Great Britain, on classification, labelling, and packaging of substances and mixtures.

#### 2.2. Label elements

## The retained CLP Regulation (EU) No 1272/2008 as amended for Great Britain Not applicable

100% of the mixture consists of components of unknown acute inhalation toxicity.

#### 2.3. Other hazards

None known.

## **SECTION 3: Composition/information on ingredients**

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Ingredient	Identifier(s)	%	Classification according to Regulation (EC) No. 1272/2008 [CLP], as amended for GB
Synthetic Amorphous Crystalline-Free Silica	(CAS-No.) 7631-86-9 (EC-No.) 231-545-4	<= 3	Substance with a national occupational exposure limit
sulphur dioxide	(CAS-No.) 7446-09-5 (EC-No.) 231-195-2	< 0.25	Compressed gas, H280 Acute Tox. 3, H331 Skin Corr. 1B, H314 STOT SE 1, H370 Nota 5,U Eye Dam. 1, H318
Soda Lime Borosilicate Glass (non-fibrous)	(CAS-No.) 65997-17-3 (EC-No.) 266-046-0	>= 97	Substance with a national occupational exposure limit

Please see section 16 for the full text of any H statements referred to in this section

Although CASRN 65997-17-3 may be regulated as a member of Index Number 650-016-00-2 (Mineral wool, with the exception of those specified elsewhere in this Annex), the substance in this product that is described by this CASRN is not fibrous and is therefore not associated with a carcinogen classification.

For information on ingredient occupational exposure limits or PBT or vPvB status, see sections 8 and 12 of this SDS

## **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

#### Inhalation

Remove person to fresh air. If you feel unwell, get medical attention.

#### Skin contact

Wash with soap and water. If signs/symptoms develop, get medical attention.

#### Eye contact

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

#### If swallowed

Rinse mouth. If you feel unwell, get medical attention.

#### 4.2. Most important symptoms and effects, both acute and delayed

No critical symptoms or effects. See Section 11.1, information on toxicological effects.

#### 4.3. Indication of any immediate medical attention and special treatment required

Not applicable

## **SECTION 5: Fire-fighting measures**

#### 5.1. Extinguishing media

Material will not burn. Use a fire fighting agent suitable for the surrounding fire.

#### 5.2. Special hazards arising from the substance or mixture

None inherent in this product.

#### 5.3. Advice for fire-fighters

No special protective actions for fire-fighters are anticipated.

## **SECTION 6: Accidental release measures**

#### 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate area. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Use personal protective equipment based on the results of an exposure assessment. Refer to Section 8 for PPE recommendations. If anticipated exposure resulting from an accidental release exceeds the protective capabilities of the PPE listed in Section 8, or are unknown, select PPE that offers an appropriate level of protection. Consider the physical and chemical hazards of the material when doing so. Examples of PPE ensembles for emergency response could include wearing bunker gear for a release of flammable material; wearing chemical protective clothing if the spilled material is a corrosive, a sensitizer, a significant dermal irritant, or can be absorbed through the skin; or donning a positive pressure supplied-air respirator for chemicals with inhalation hazards. For information regarding physical and health hazards, refer to sections 2 and 11 of the SDS.

#### 6.2. Environmental precautions

Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. Use wet sweeping compound or water to avoid dusting. Sweep up. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

#### 6.4. Reference to other sections

Refer to Section 8 and Section 13 for more information

## **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

For industrial/occupational use only. Not for consumer sale or use. Avoid breathing dust/fume/gas/mist/vapours/spray.

Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

#### 7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

#### 7.3. Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See Section 8 for exposure controls and personal protection recommendations.

## **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

## Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

Ingredient	CAS Nbr	Agency	Limit type	<b>Additional comments</b>
DUST, INERT OR NUISANCE	65997-17-3	UK HSE	TWA(as respirable dust):4 mg/m3;TWA(as inhalable dust):10 mg/m3	
sulphur dioxide	7446-09-5	UK HSE	TWA:1.3 mg/m3(0.5 ppm);STEL:2.7 mg/m3(1 ppm)	
DUST, INERT OR NUISANCE	7631-86-9	UK HSE	TWA(as respirable dust):4 mg/m3;TWA(as inhalable dust):10 mg/m3	
Silicon dioxide	7631-86-9	UK HSE	TWA(as respirable dust):2.4 mg/m3;TWA(as inhalable dust):6 mg/m3	

UK HSE: UK Health and Safety Commission

TWA: Time-Weighted-Average STEL: Short Term Exposure Limit

CEIL: Ceiling

#### **Biological limit values**

No biological limit values exist for any of the components listed in Section 3 of this safety data sheet.

#### 8.2. Exposure controls

#### 8.2.1. Engineering controls

Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapours/spray. If ventilation is not adequate, use respiratory protection equipment.

#### 8.2.2. Personal protective equipment (PPE)

#### Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Safety glasses with side shields.

Applicable Norms/Standards

Use eye protection conforming to EN 166

## Skin/hand protection

No chemical protective gloves are required.

#### **Respiratory protection**

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

Applicable Norms/Standards

Use a respirator conforming to EN 140 or EN 136: filter type P

## **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Physical state	Solid.
Specific Physical Form:	Fine Powder < 100 microns
Colour	White
Odor	Odourless
Odour threshold	Not applicable.
Melting point/freezing point	No data available.
Boiling point/boiling range	Not applicable.
Flammability	Not applicable.
Flammable Limits(LEL)	Not applicable.
Flammable Limits(UEL)	Not applicable.
Flash point	Not applicable.
Autoignition temperature	Not applicable.
Decomposition temperature	Not applicable.
pH	substance/mixture is non-soluble (in water)
Kinematic Viscosity	Not applicable.
Water solubility	Negligible
Solubility- non-water	Not applicable.
Partition coefficient: n-octanol/water	No data available.
Vapour pressure	Not applicable.
Density	0.25 - 0.63 g/cm3
Relative density	0.25 - 0.63 [ <i>Ref Std</i> :WATER=1]
Relative Vapour Density	Not applicable.
Particle Characteristics	Not applicable.

#### 9.2. Other information

9.2.2 Other safety characteristics

EU Volatile Organic CompoundsNo data available.Evaporation rateNot applicable.Molecular weightNo data available.Percent volatile< 0.5 % weight</th>Softening point>=600 °C

## **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

This material is considered to be non reactive under normal use conditions

#### 10.2 Chemical stability

Stable.

#### 10.3 Possibility of hazardous reactions

Hazardous polymerisation will not occur.

#### 10.4 Conditions to avoid

None known.

#### 10.5 Incompatible materials

None known.

#### 10.6 Hazardous decomposition products

**Substance** 

Condition

Oxides of sulphur.

If Breakage Occurs

## **SECTION 11: Toxicological information**

The information below may not agree with the material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 11 are based on UN GHS calculation rules and classifications derived from 3M assessments.

11.1. Information on hazard classes as defined in the retained CLP Regulation (EU) No 1272/2008, as amended for Great Britain.

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

#### Inhalation

Respiratory tract irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

#### Skin contact

Mechanical skin irritation: Signs/symptoms may include abrasion, redness, pain, and itching.

#### **Eve contact**

Mechanical eye irritation: Signs/symptoms may include pain, redness, tearing and corneal abrasion.

#### Ingestion

May be harmful if swallowed.

#### **Toxicological Data**

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

#### **Acute Toxicity**

Name	Route	Species	Value
Overall product	Inhalation- Dust/Mist(4 hr)		No data available; calculated ATE >12.5 mg/l
Overall product	Ingestion		No data available; calculated ATE >2,000 - =5,000 mg/kg

D. . . . ( - C - 12

Soda Lime Borosilicate Glass (non-fibrous)	Dermal		LD50 estimated to be > 5,000 mg/kg
Soda Lime Borosilicate Glass (non-fibrous)	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg
Synthetic Amorphous Crystalline-Free Silica	Dermal	Rabbit	LD50 > 5,000 mg/kg
Synthetic Amorphous Crystalline-Free Silica	Inhalation- Dust/Mist	Rat	LC50 > 0.691 mg/l
	(4 hours)		
Synthetic Amorphous Crystalline-Free Silica	Ingestion	Rat	LD50 > 5,110 mg/kg
sulphur dioxide	Inhalation-	Rat	LC50 1,000 ppm
	Gas (4		
	hours)		

 $\overline{ATE}$  = acute toxicity estimate

## Skin Corrosion/Irritation

Name	Species	Value
Soda Lime Borosilicate Glass (non-fibrous)	Professio	No significant irritation
	nal	
	judgemen	
	t	
Synthetic Amorphous Crystalline-Free Silica	Rabbit	No significant irritation
sulphur dioxide	official	Corrosive
	classificat	
	ion	

Serious Eve Damage/Irritation

Name	Species	Value
Soda Lime Borosilicate Glass (non-fibrous)	Professio nal judgemen t	No significant irritation
Synthetic Amorphous Crystalline-Free Silica	Rabbit	No significant irritation
sulphur dioxide	Human and animal	Corrosive

#### **Skin Sensitisation**

Name	Species	Value
Synthetic Amorphous Crystalline-Free Silica	Human and	Not classified
	animal	

## **Respiratory Sensitisation**

For the component/components, either no data is currently available or the data is not sufficient for classification.

Germ Cell Mutagenicity

Name	Route	Value
Synthetic Amorphous Crystalline-Free Silica	In Vitro	Not mutagenic
sulphur dioxide	In Vitro	Some positive data exist, but the data are not sufficient for classification
sulphur dioxide	In vivo	Some positive data exist, but the data are not sufficient for classification

Carcinogenicity

Name	Route	Species	Value
Synthetic Amorphous Crystalline-Free Silica	Not specified.	Mouse	Some positive data exist, but the data are not sufficient for classification
sulphur dioxide	Inhalation	Human and	Some positive data exist, but the data are not sufficient for classification

	anımal	
	amma	

#### **Reproductive Toxicity**

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test result	Exposure Duration
Synthetic Amorphous Crystalline-Free Silica	Ingestion	Not classified for female reproduction	Rat	NOAEL 509 mg/kg/day	1 generation
Synthetic Amorphous Crystalline-Free Silica	Ingestion	Not classified for male reproduction	Rat	NOAEL 497 mg/kg/day	1 generation
Synthetic Amorphous Crystalline-Free Silica	Ingestion	Not classified for development	Rat	NOAEL 1,350 mg/kg/day	during organogenesis
sulphur dioxide	Inhalation	Not classified for female reproduction	Mouse	NOAEL 30 ppm	2 generation
sulphur dioxide	Inhalation	Not classified for male reproduction	Mouse	NOAEL 30 ppm	2 generation
sulphur dioxide	Inhalation	Not classified for development	Human	NOAEL Not available	environmental exposure

#### Target Organ(s)

Specific Target Organ Toxicity - single exposure

Specific Turget Organ	romerej .	ingie exposure				
Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
sulphur dioxide	Inhalation	respiratory system	Causes damage to organs	Human	NOAEL 0.25	

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test result	Exposure Duration
Synthetic Amorphous Crystalline-Free Silica	Inhalation	respiratory system   silicosis	Not classified	Human	NOAEL Not available	occupational exposure
sulphur dioxide	Inhalation	respiratory system	Not classified	Rat	LOAEL 10 ppm	21 weeks

#### **Aspiration Hazard**

For the component/components, either no data is currently available or the data is not sufficient for classification.

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

#### 11.2. Information on other hazards

Not applicable.

## **SECTION 12: Ecological information**

The information below may not agree with the material classification in Section 2 and/or the ingredient classifications in Section 3 if specific ingredient classifications are mandated by a competent authority. In addition, statements and data presented in Section 12 are based on UN GHS calculation rules and classifications derived from 3M assessments.

## 12.1. Toxicity

No product test data available.

Material CAS # Organism Type Exposure Test endpoint Test rest	
---	--

Synthetic Amorphous Crystalline-Free Silica	7631-86-9	Green algae	Experimental	72 hours	ErC50	>173.1 mg/l
Synthetic Amorphous Crystalline-Free Silica	7631-86-9	Rainbow trout	Experimental	96 hours	LC50	>1,000 mg/l
Synthetic Amorphous Crystalline-Free Silica	7631-86-9	Sediment organism	Experimental	96 hours	EC50	8,500 mg/kg (Dry Weight)
Synthetic Amorphous Crystalline-Free Silica	7631-86-9	Water flea	Experimental	48 hours	EL50	>1,000 mg/l
Synthetic Amorphous Crystalline-Free Silica	7631-86-9	Green algae	Experimental	72 hours	NOEC	173.1 mg/l
Synthetic Amorphous Crystalline-Free Silica	7631-86-9	Water flea	Experimental	21 days	NOEC	68 mg/l
Synthetic Amorphous Crystalline-Free Silica	7631-86-9	Activated sludge	Experimental	3 hours	EC50	>1,000 mg/l
Synthetic Amorphous Crystalline-Free Silica	7631-86-9	Redworm	Experimental	56 days	NOEC	100,000 mg/kg (Dry Weight)
sulphur dioxide	7446-09-5	Fathead minnow	Experimental	96 hours	LC50	26.2 mg/l
sulphur dioxide	7446-09-5	Water flea	Experimental	48 hours	EC50	1.94 mg/l
Soda Lime Borosilicate Glass (non-fibrous)	65997-17-3	N/A	Data not available or insufficient for classification	N/A	N/A	N/A

## 12.2. Persistence and degradability

Material	CAS Nbr	Test type	Duration	Study Type	Test result	Protocol
Synthetic	7631-86-9		N/A	N/A	N/A	N/A
Amorphous		insufficient				
Crystalline-Free						
Silica						
sulphur dioxide	7446-09-5	Estimated		Photolytic half-life	6.4 hours (t 1/2)	
F		Photolysis		(in air)	` ′	
Soda Lime	65997-17-3			(in air) N/A	N/A	N/A
1	65997-17-3				N/A	N/A

## 12.3 : Bioaccumulative potential

Material	Cas No.	Test type	Duration	Study Type	Test result	Protocol
Synthetic Amorphous Crystalline-Free Silica	7631-86-9	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
sulphur dioxide	7446-09-5	Data not available or insufficient for classification	N/A	N/A	N/A	N/A
Soda Lime Borosilicate Glass (non-fibrous)	65997-17-3	Data not available or insufficient for classification	N/A	N/A	N/A	N/A

Dagge O of 1

#### 12.4. Mobility in soil

No test data available.

#### 12.5. Results of the PBT and vPvB assessment

Not applicable

#### 12.6. Other adverse effects

No information available.

## **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Contact your sales representative for information on reclaiming this product. Dispose of waste product in a permitted industrial waste facility. Empty and clean product containers may be disposed as non-hazardous waste. Consult your specific regulations and service providers to determine available options and requirements.

The coding of a waste stream is based on the application of the product by the consumer. Since this is out of the control of 3M, no waste code(s) for products after use will be provided. Please refer to the European Waste Code (EWC - 2000/532/EC and amendments) to assign the correct waste code to your waste stream. Ensure national and/or regional regulations are complied with and always use a licensed waste contractor.

#### EU waste code (product as sold)

101112 Waste glass other than those mentioned in 10 11 11

## **SECTION 14: Transportation information**

Not hazardous for transportation.

	Ground Transport (ADR)	Air Transport (IATA)	Marine Transport (IMDG)
14.1 UN number	No data available.	No data available.	No data available.
14.2 UN proper shipping name	No data available.	No data available.	No data available.
14.3 Transport hazard class(es)	No data available.	No data available.	No data available.
14.4 Packing group	No data available.	No data available.	No data available.
14.5 Environmental hazards	No data available.	No data available.	No data available.
14.6 Special precautions for user	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.	Please refer to the other sections of the SDS for further information.
14.7 Transport in bulk according to Annex II of Marpol 73/78 and IBC Code	No data available.	No data available.	No data available.

Control Temperature	No data available.	No data available.	No data available.
Emergency Temperature	No data available.	No data available.	No data available.
ADR Classification Code	No data available.	No data available.	No data available.
IMDG Segregation Code	No data available.	No data available.	No data available.

Please contact the address or phone number listed on the first page of the SDS for additional information on the transport/shipment of the material by rail (RID) or inland waterways (ADN).

## **SECTION 15: Regulatory information**

## 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Carcinogenicity

Ingredient	CAS Nbr	<u>Classification</u>	Regulation
sulphur dioxide	7446-09-5	Gr. 3: Not classifiable	International Agency for Research on Cancer
Synthetic Amorphous Crystalline-Free Silica	7631-86-9	Gr. 3: Not classifiable	International Agency for Research on Cancer

#### Global inventory status

Contact 3M for more information.

#### COMAH Regulation, SI 2015/483

Seveso hazard categories, Annex 1, Part 1 None

Seveso named dangerous substances, Annex 1, Part 2 None

#### Regulation (EU) No 649/2012, as amended for GB

No chemicals listed

#### 15.2. Chemical Safety Assessment

Not applicable.

## **SECTION 16: Other information**

#### List of relevant H statements

H280	Contains gas under pressure; may explode if heated.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H370	Causes damage to organs.

#### **Revision information:**

- GB Section 02: Other hazards phrase information was added.
- GB Section 04: Information on toxicological effects information was added.
- GB Section 12: Classification Warning information was added.
- GB Section 15: Carcinogenicity information information was added.
- GB Section 15: Chemical Safety Assessment information was added.
- GBSDS Section 14 Transport in bulk Main Heading information was added.
- GBSDS Section 14 UN Number information was added.
- Section 1: E-mail address information was modified.
- Section 1: Product name information was modified.
- Section 02: CLP Classification Statements information was deleted.
- Section 02: GB Classification Statements information was added.
- Section 02: Label Elements: GB Percent Unknown information was added.
- Section 2: Other hazards phrase information was deleted.
- Section 3: Composition/Information of ingredients table information was added.
- Section 3: Composition/Information of ingredients table information was deleted.
- Section 04: Information on toxicological effects information was deleted.
- Section 6: Accidental release personal information information was modified.
- Section 8: Appropriate Engineering controls information information was modified.
- Section 8: Occupational exposure limit table information was modified.
- OEL Reg Agency Desc information was modified.
- Section 8: Personal Protection Respiratory Information information was modified.
- Section 9: Density information information was modified.
- Section 9: Flammability (solid, gas) information information was deleted.
- Section 09: Flammability information information was added.
- Section 09: Particle Characteristics N/A information was added.
- Section 9: Relative density information information was modified.
- Section 9: Vapour density value information was modified.
- Section 11: Acute Toxicity table information was modified.
- Section 11: Carcinogenicity Table information was modified.
- Section 11: Classification disclaimer information was deleted.
- Section 11: GB Classification disclaimer information was added.
- Section 11: GB No endocrine disruptor information available warning information was added.
- Section 11: Germ Cell Mutagenicity Table information was modified.
- Section 11: Health Effects Ingestion information information was modified.
- Section 11: No endocrine disruptor information available warning information was deleted.
- Section 11: Reproductive Toxicity Table information was modified.
- Section 11: Serious Eye Damage/Irritation Table information was modified.
- Section 11: Skin Corrosion/Irritation Table information was modified.
- Section 11: Skin Sensitization Table information was modified.
- Section 11: Specific Target Organ Toxicity single exposure text information was deleted.
- Section 11: Target Organs Repeated Table information was added.
- Section 11: Target Organs Repeated Table information was deleted.
- Section 11: Target Organs Single Table information was added.
- Section 12: 12.6. Endocrine Disrupting Properties information was deleted.
- Section 12: 12.6. Other adverse effects information was added.
- Section 12: 12.7. Other adverse effects information was deleted.
- Section 12: Classification Warning information was deleted.
- Section 12: Component ecotoxicity information information was modified.
- Section 12: No Data text for adverse effects information or Endocrine Disruptors information was added.
- Prints No Data if Adverse effects information is not present information was deleted.
- Section 12: No endocrine disruptor information available warning information was deleted.
- Section 12: Persistence and Degradability information information was modified.
- Section 12:Bioccumulative potential information information was modified.
- Section 13: Standard Phrase Category Waste GHS information was modified.
- Section 14 Multiplier Main Heading information was deleted.
- Section 14 Multiplier Regulation Data information was deleted.

Section 14 Transport Category – Main Heading information was deleted.

Section 14 Transport Category – Regulation Data information was deleted.

Section 14 Marine transport in bulk according to IMO instruments – Main Heading information was deleted.

Section 14 Tunnel Code – Main Heading information was deleted.

Section 14 Tunnel Code – Regulation Data information was deleted.

Section 14 UN Number information was deleted.

Section 15: Carcinogenicity information information was deleted.

Section 15: Chemical Safety Assessment information was deleted.

Two-column table displaying the unique list of H Codes and statements (std phrases) for all components of the given material. information was added.

Section 16: Web address information was added.

Section 16: Web address information was deleted.

DISCLAIMER: The information on this Safety Data Sheet is based on our experience and is correct to the best of our knowledge at the date of publication, but we do not accept any liability for any loss, damage or injury resulting from its use (except as required by law). The information may not be valid for any use not referred to in this Data Sheet or use of the product in combination with other materials. For these reasons, it is important that customers carry out their own test to satisfy themselves as to the suitability of the product for their own intended applications. In addition, this SDS is being provided to convey health and safety information. If you are the importer of record of this product into the European Union, you are responsible for all regulatory requirements, including, but not limited to, product registrations/notifications, substance volume tracking, and potential substance registration.

#### 3M SDSs for Great Britain are available at www.3M.com/uk

For Northern Ireland documents, please contact your 3M representative to obtain a copy.